

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

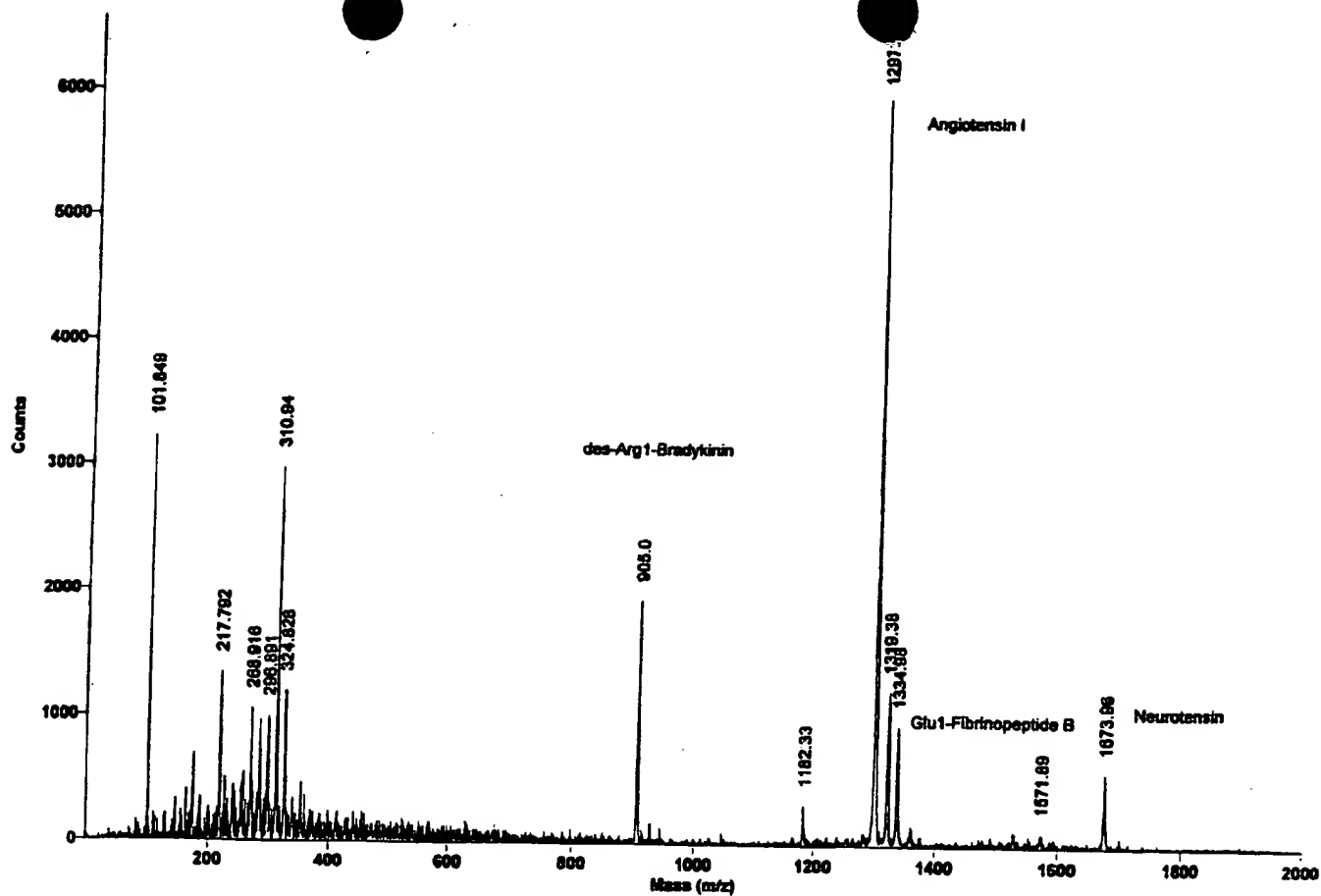


Figure 1.

Mass spectrum showing relative intensity (Counts) versus mass-to-charge ratio (m/z). The base peak is at m/z 102.34. Other significant peaks are labeled at m/z 73.21, 130.15, 165.20, 187.11, 201.03, 244.06, 259.07, 311.06, and 372.94.

Figure 2.

Method: UNRES.1
Mode: Linear
Accelerating Voltage: 15000
Grid Voltage: 80.000 %
Guide Wire Voltage: 0.250 %
Detector: SDD
Sample: C2

Beam: 2100
Bump Arranged: 50
Pretreat: 1.7e-07
Low Noise Data: OFF
Triton Ion Selector: SE2.2 OFF
Negative Ions: OFF
Collector: 1026400 3.11 PM

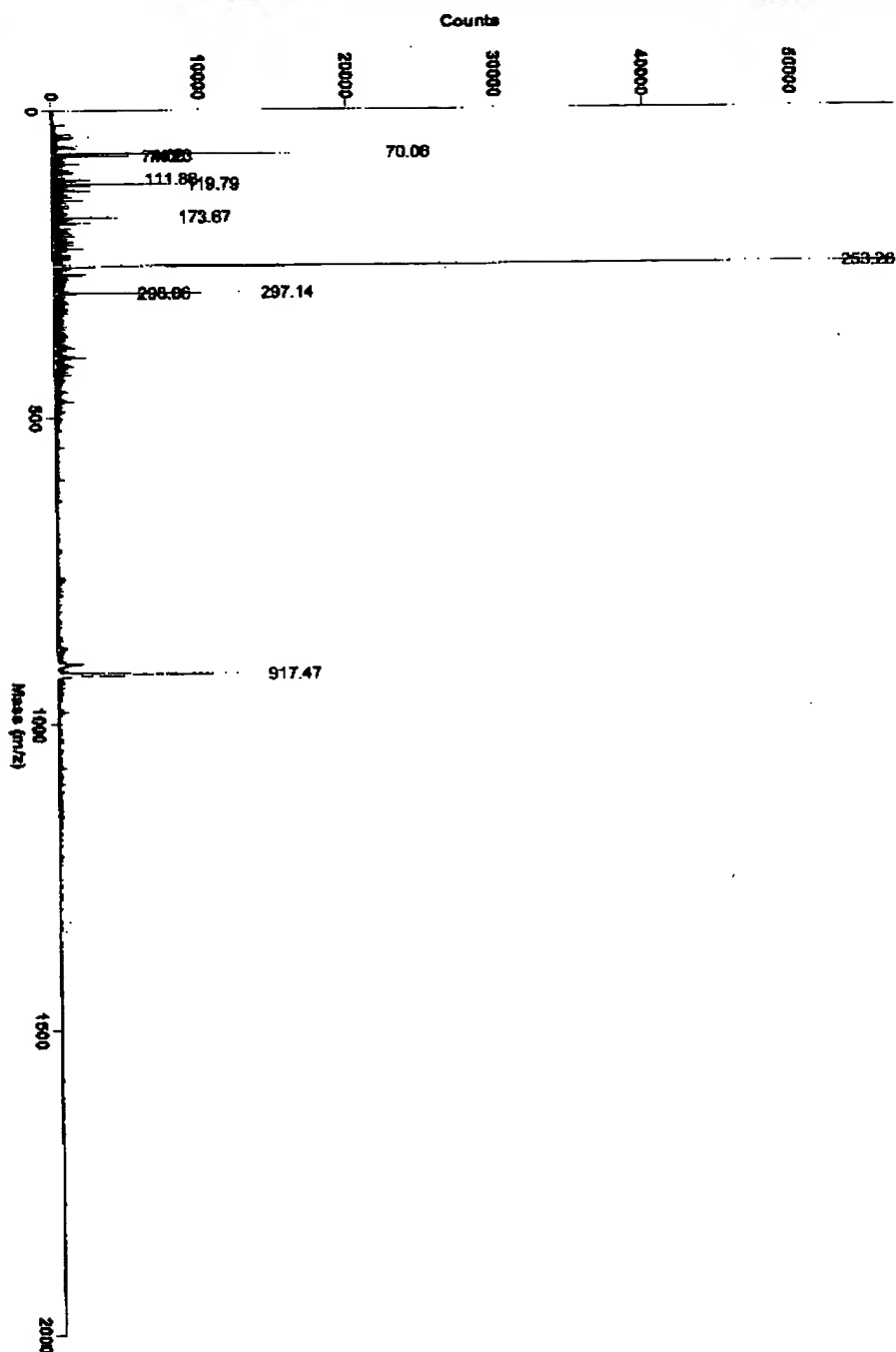


Figure 3.

Mass spectrum of compound 10. The x-axis represents the mass-to-charge ratio (m/z) from 0 to 1500, and the y-axis represents relative intensity. The base peak is at m/z 1673. Other significant peaks are labeled at m/z 905, 1297, and 1571.

m/z	Relative Intensity (approx.)
905	0.45
1297	0.75
1571	0.15
1673	1.00

1000

Mass spectrum of compound **1**. The x-axis represents the mass-to-charge ratio (m/z) from 0 to 2000, and the y-axis represents relative intensity. The base peak is at m/z 905. Other significant peaks are labeled at m/z 1297, 1571, and 1674.

Figure 5.

Mass spectrum showing relative intensity versus mass (m/z). The base peak is at m/z 1299. Other significant peaks are labeled at m/z 2097, 2469, 3663, and 5740.

Figure 6.

Figure 6. The effect of the initial concentration of the monomer (C_0) on the polymerization rate at different temperatures. The reaction conditions were as follows: $[C_{\text{cat}}] = 0.001 \text{ mol/L}$, $[C_{\text{inhib}}] = 0.001 \text{ mol/L}$, $[C_{\text{solvent}}] = 0.998 \text{ mol/L}$, $t_p = 10 \text{ min}$.

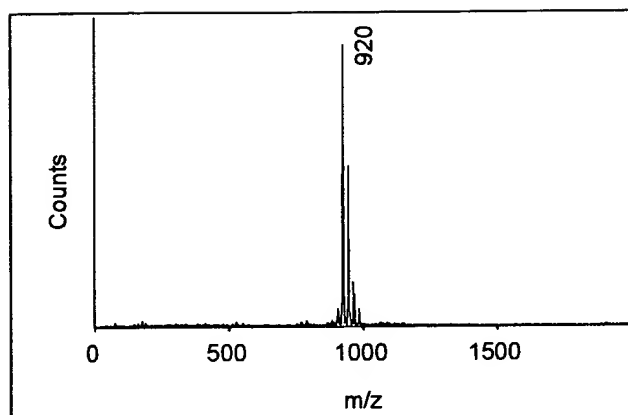


Figure 7.

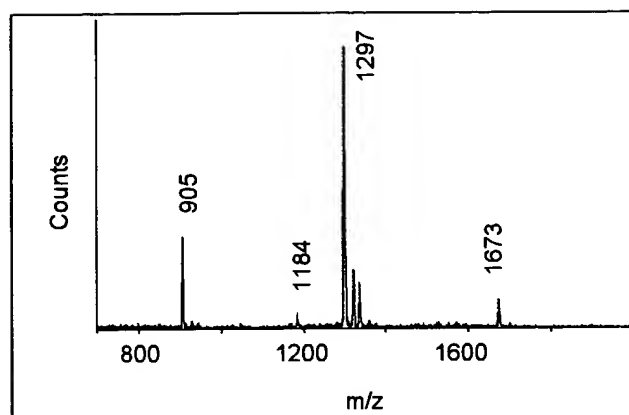


Figure 8.

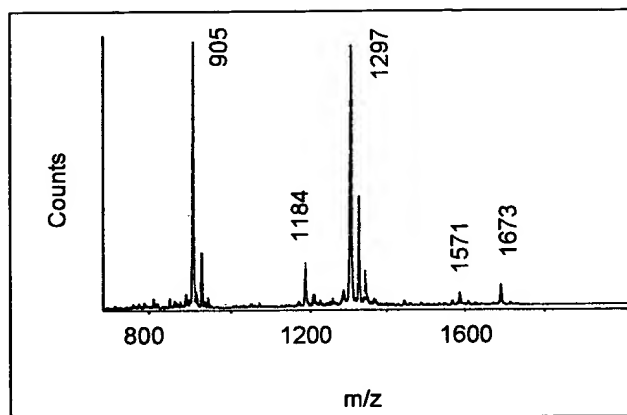


Figure 9.

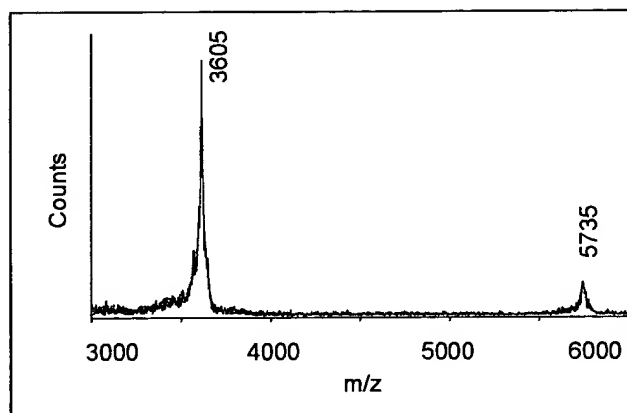


Figure 10.

A scatter plot showing the relationship between 337nm Reflectivity (%) on the x-axis and Laser Power Per Pulse (uJ) on the y-axis. The x-axis ranges from 10 to 60 with major ticks every 10 units. The y-axis ranges from 1 to 6 with major ticks every 0.5 units. Three data points are plotted, showing a positive correlation between reflectivity and laser power.

337nm Reflectivity (%)	Laser Power Per Pulse (uJ)
23	1.8
35	3.8
49	4.9

Figure 11.

A graph showing the relationship between Laser Power Per Pulse (uJ) and two metrics: Signal (Counts) and Signal / RMS Noise. The x-axis ranges from 4 to 11 uJ. The left y-axis represents Signal in Counts, ranging from 0 to 70,000. The right y-axis represents Signal / RMS Noise, ranging from 0 to 500. The Signal data is plotted as open circles connected by a solid line, showing a peak around 8.5 uJ. The Signal / RMS Noise data is plotted as open diamonds, showing a peak around 6.5 uJ.

Laser Power Per Pulse (uJ)	Signal (Counts)	Signal / RMS Noise
4.2	1000	10
4.5	1000	20
4.8	2000	30
5.2	4000	50
5.5	8000	100
5.8	18000	200
6.2	26000	280
6.5	43000	300
6.8	39000	450
7.2	49000	320
7.5	53000	280
7.8	58000	350
8.2	58000	300
8.5	60000	280
8.8	58000	250
9.2	56000	220
9.5	56000	200
9.8	55000	250
10.2	49000	200
10.5	38000	180
10.8	38000	150
11.2	24000	120
11.5	28000	100
11.8	21000	110

Figure 12.

Mass spectrum showing relative intensity (Counts) versus mass-to-charge ratio (m/z). The base peak is at m/z 287. Other labeled peaks include 130, 648, 716, 763, 840, 1037, 1065, 1527, and 1806.

Figure 13.

A cross-sectional transmission electron micrograph (TEM) showing the interface between a silicon (Si) substrate and a silicon dioxide (SiO₂) layer. The Si substrate is the dark, textured region at the bottom, labeled "Si". The SiO₂ layer is the lighter, more uniform region above it. A schematic overlay at the top shows two vertical lines representing the SiO₂ layer thickness. The top line is labeled "~30 Å" with arrows indicating its width. The bottom line is labeled "~100 Å" with arrows indicating its width. A scale bar at the bottom right indicates a length of 0.1 μm.

Temperature	120 °C
Power	500 W
Pressure	7.8 mTorr

Figure 14a.

100C PVD Si on Wafer

Mag = 100.00 K X

200nm

EHT = 2.50 kV

WD = 2 mm

Signal A = InLens

Date: 21 Sep 2000

Time: 11:33

Figure 14b.

Figure 4. Relative 337nm light reflectivity versus oxide coating thickness

Oxide Thickness (Å)	Relative 337nm Light Reflectivity (%)
0	60
300	42
600	38
1000	58
1200	62
1400	55
1600	40
1800	38
2000	52
2400	60
2800	38
3200	50
3600	62
3800	42
4000	38
4500	60
5100	35
5800	60

-

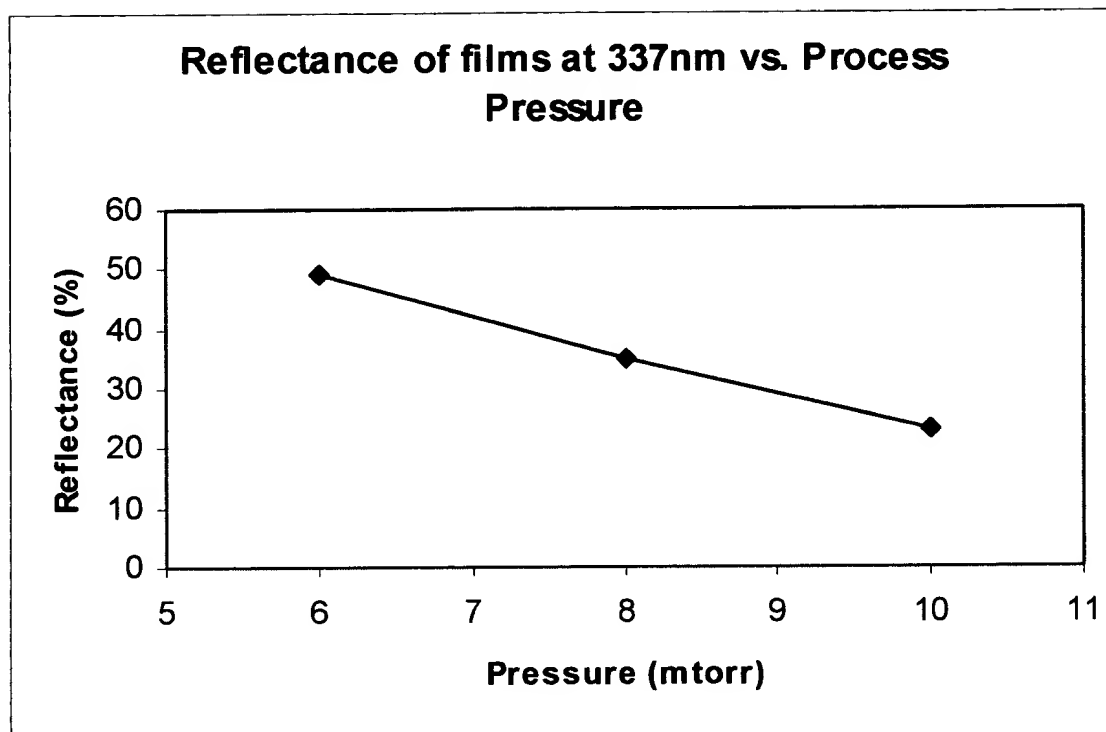
[illegible]

Figure 17.

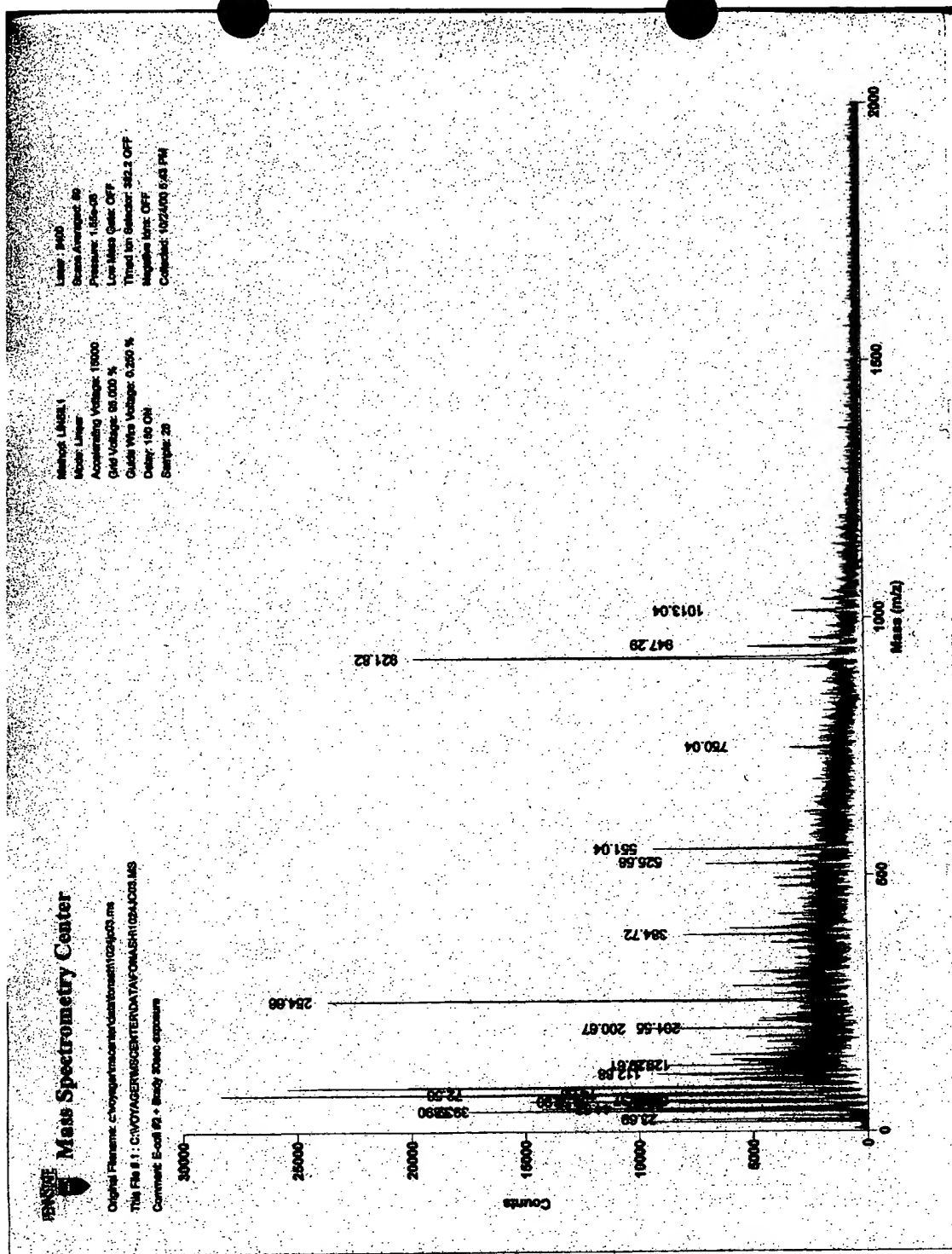


Figure 18b.

RMU-DE Mass Spectrometry Center

Original Filename: c:\vo\AGER\MSDCENTER\DATA\AF04\MSH1013\02.ms
 The File # : C:\VO\AGER\MSDCENTER\DATA\AF04\MSH1013\02.ms
 Comment: LB control

Method: LINSIL
 Mode: Linear
 Accelerating Voltage: 15000
 Grid Voltage: 95.000 %
 Guide Wire Voltage: 0.250 %
 Delay: 150 ON
 Sample: 43

Laser: 2300
 Beam Averaged: 50
 Pressure: 3.60e-06
 Low Mass Gate: OFF
 Trapped Ion Scanner: 382.2 OFF
 Negative Ions: OFF
 Collected: 10/13/00 11:52 AM

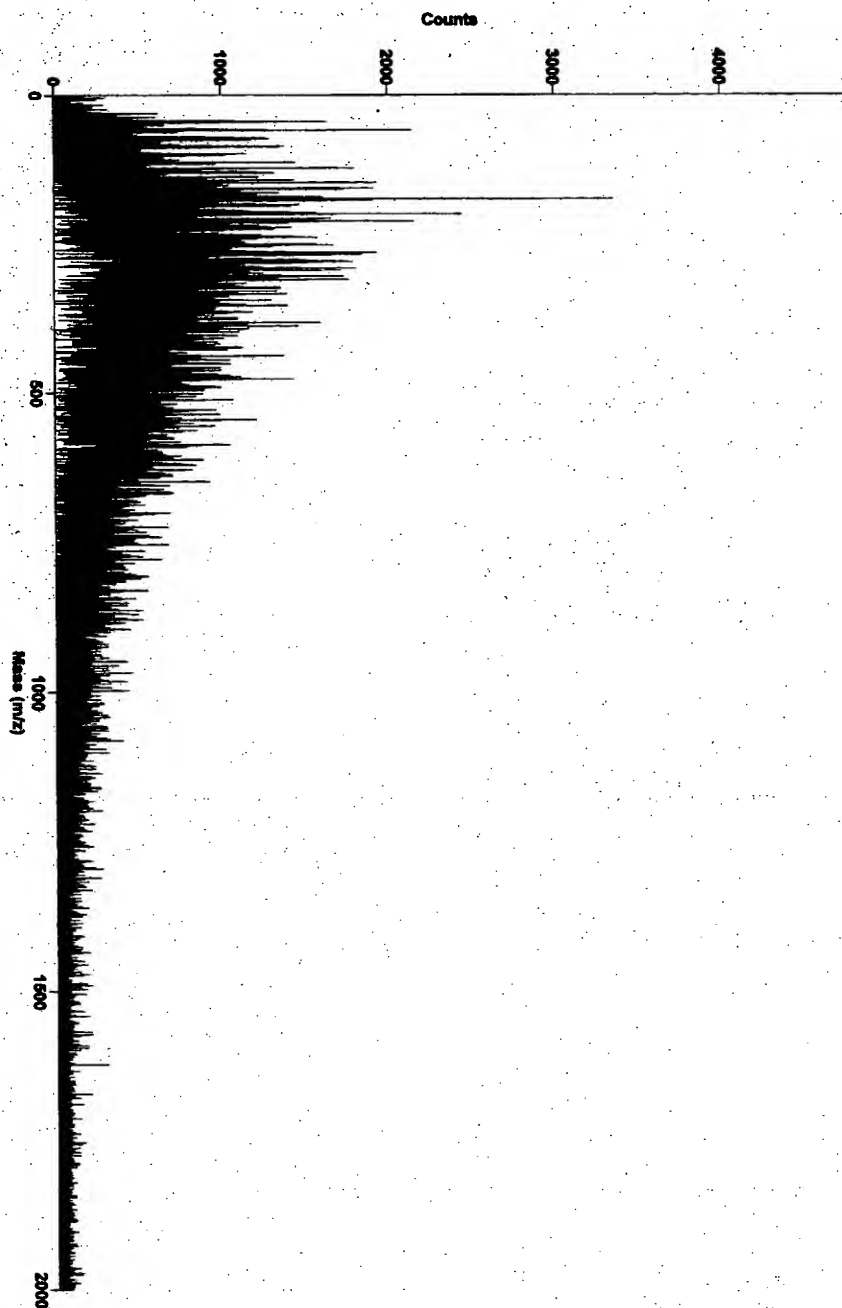


Figure 19a.

00730040 121000

Mass Spectrometry Center

Original Filename: c:\voyager\mccenter\data\fonash11013\c04.ms
This File # 1 : C:\VOYAGER\MSCENTER\DATA\FONASH11013\C04.MS
Comment: E-coll Media.

Lower: 2000
 Score Averaged: 60
 Metric: Lower
 Accelerating Voltage: 18000
 Pressure: 2.53e-09
 Low Mass Gain: OFF
 Grid Voltage: 90.000 %
 Trapped Ion Selector: 382.2 OFF
 Guide Wire Voltage: 0.250 %
 Negative Ions: OFF
 Delay: 150 ON
 Collected: 1071500 11:57 AM
 Sample: 35

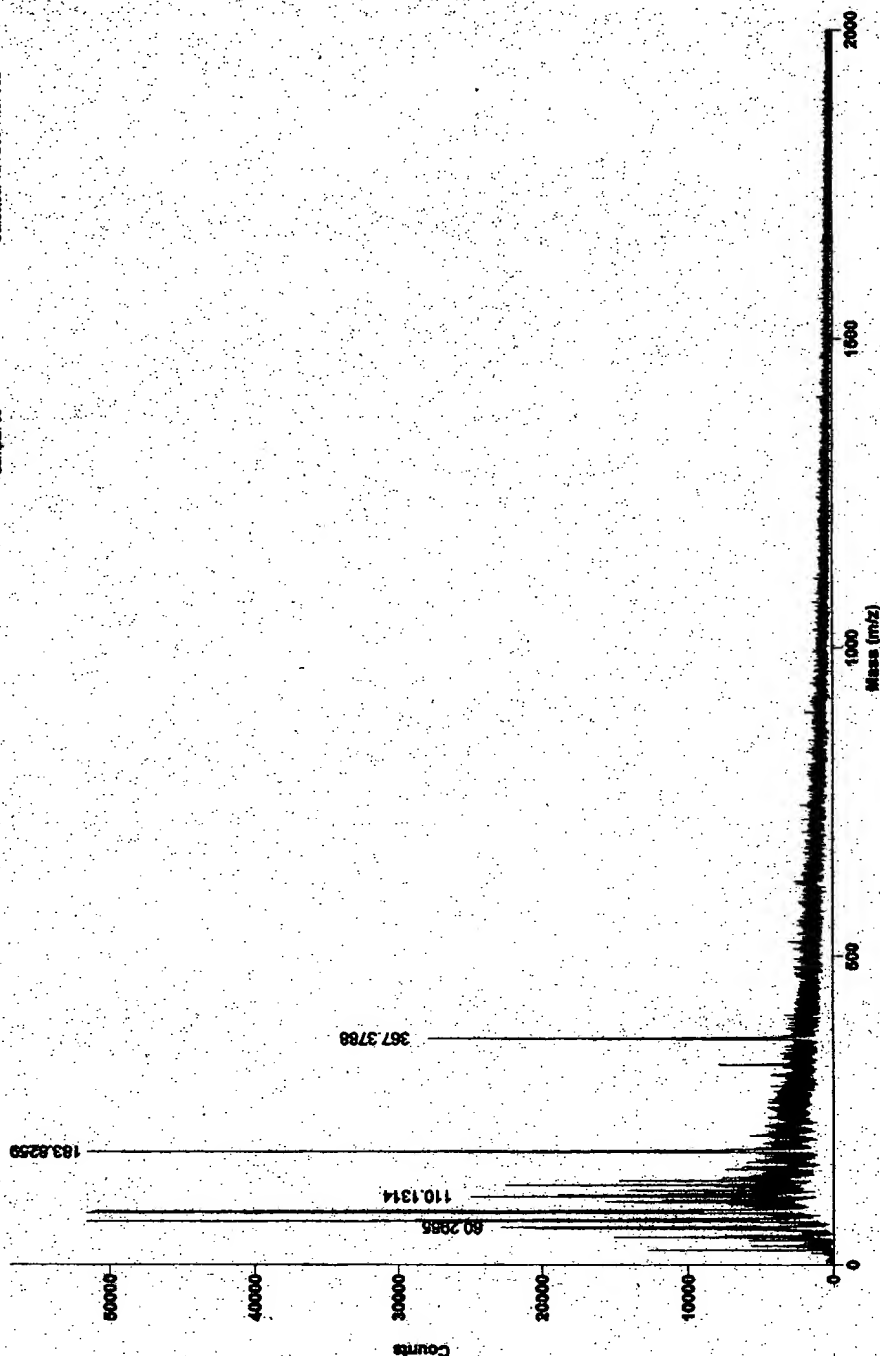


Figure 19b.

005121 0105450

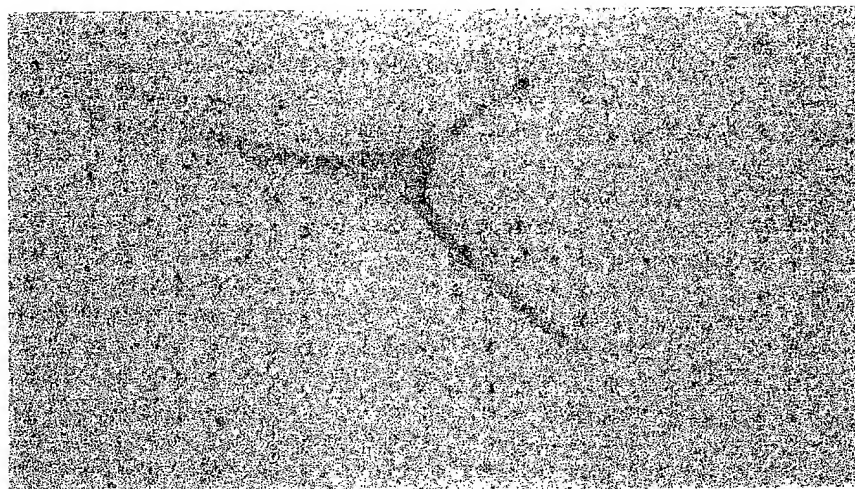


Figure 20.

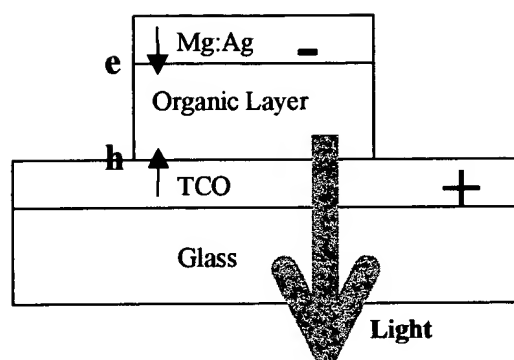


Figure 21.

Figure 1 displays 12 histograms, labeled x_1 through x_{12} , showing the distribution of the number of non-zero elements in the vector x_k . The x-axis represents the number of non-zero elements (0 to 10), and the y-axis represents the count (0 to 10). The distributions are roughly bell-shaped and centered around 5, with the peak count increasing from 10 for x_1 to 12 for x_{12} .

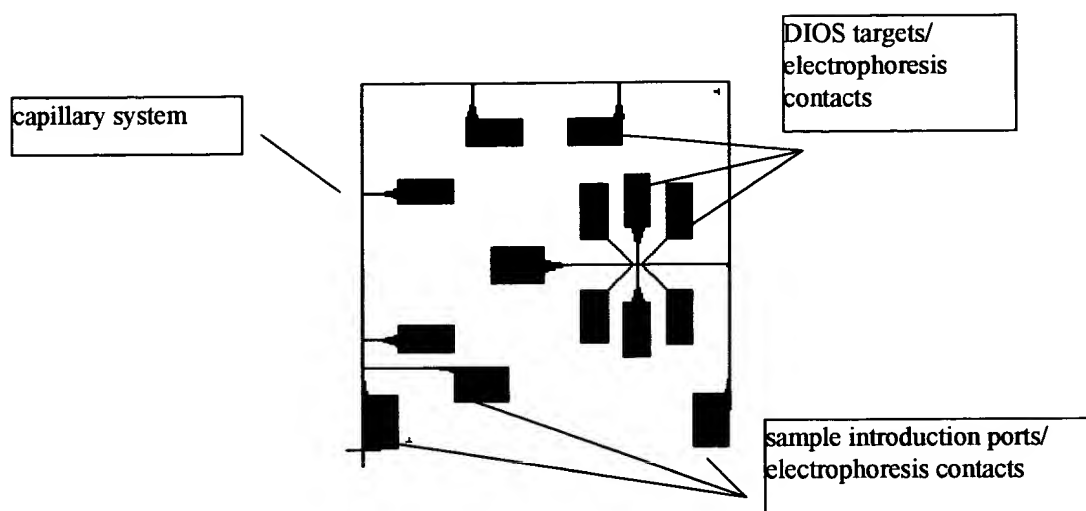


Figure 22.